Yukon
Health and Social Services

Yukon Influenza Surveillance Report
Influenza Season: 2009-2010
Summary Report from October 11th – November 6th, 2009
FluWatch Weeks 41- 43

Prepared by Yukon Communicable Disease Control
Report Written: November 6th, 2009
Disseminated: November 6th, 2009

Report Highlights

This surveillance report produced by YCDC summarizes influenza activity in the Yukon from October 11th to November 6th, 2009 which coincides with FluWatch weeks 41 to 43.
Please note that FluWatch reports are reported one week behind the current date.

2009-2010 FluWatch Weeks Calendar: http://www.phac-aspc.gc.ca/fluwatch/09-10/09-10cal-eng.php

During this period of time sharp increases of influenza activity have been seen in much of the territory. Most surveillance indicators, including emergency room visits from WGH hospital and percentage of positive laboratory specimens for influenza have increased since the week 41 (October 11th – 17th 2009).

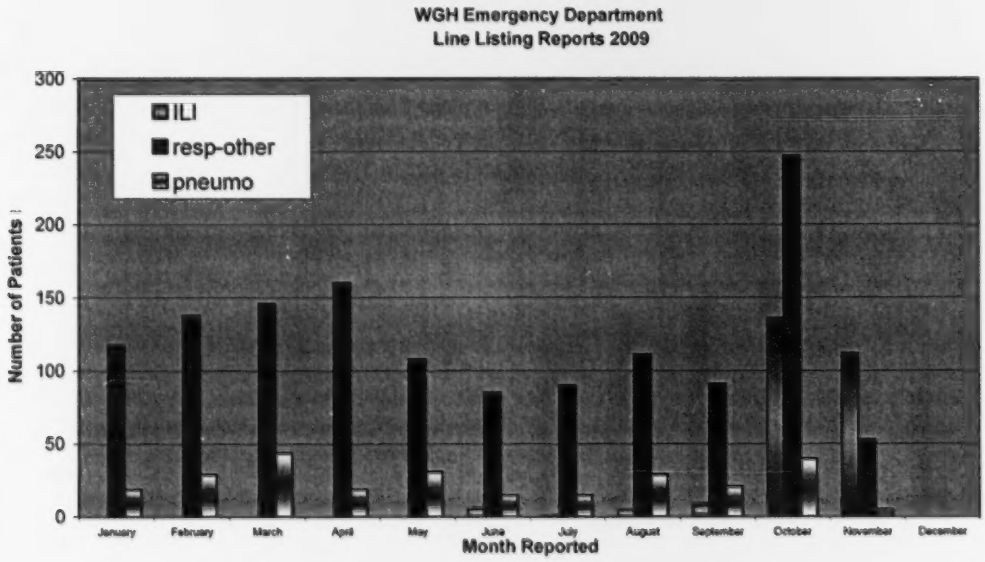
Pandemic H1N1 (pH1N1) Severe Outcomes

From October 20th to November 6th 2009, 8 pH1N1 cases in Yukon have been admitted to hospital. Among hospitalized cases 7 of the 8 had at least one risk factor for influenza complications. One hospitalized case was admitted to an intensive care unit and eventually died. This is Yukon's first pH1N1 related death, date of death was November 1st, 2009. The death occurred in a female child, underlying medical conditions were present.

Whitehorse General Hospital Emergency Visits

Since week 42 (October 18th -24th) the WGH emergency department has experienced significant increases in the number of patients presenting with influenza-like illness and other respiratory symptoms as compared to previous weeks.

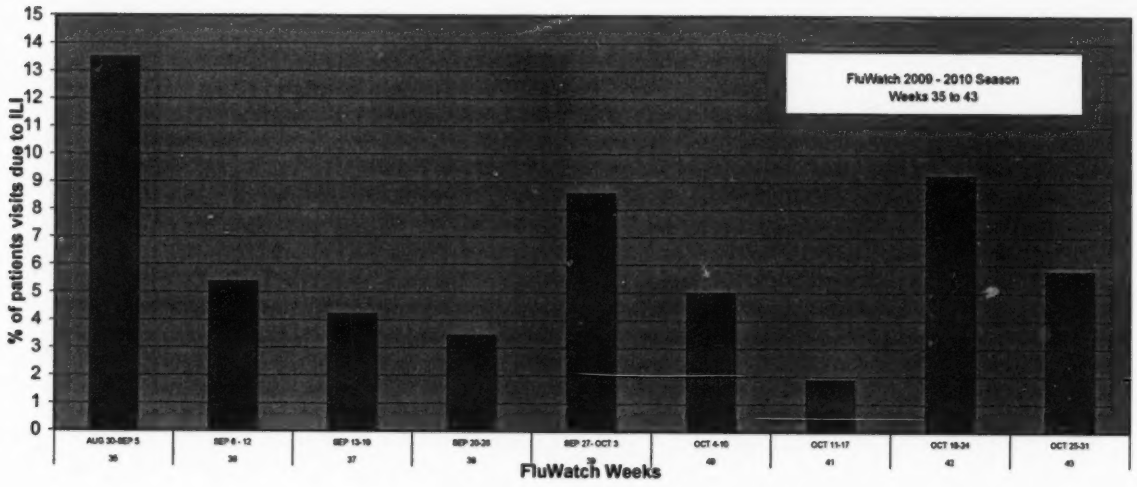
The following graph depicts WGH ER visits for respiratory reasons by month. Columns represent visits for ILI, Pneumonia and other respiratory symptoms.



Sentinel Physicians and Sites (Community Health Centres)

Sentinel surveillance during weeks 41-43 detected no significant changes in the percentage of patients presenting to sentinel physicians or sites with ILI. Sentinel response rates during this time ranged from 38% to 75% Yukon's sentinel surveillance system is comprised of all Community Health Centres and participating physicians. (FluWatch Sentinel Surveillance Information http://www.phac-aspc.gc.ca/fluwatch/sent-eng.php)

Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week to Yukon Sentinel Physicians & Sites



FluWatch Reporting

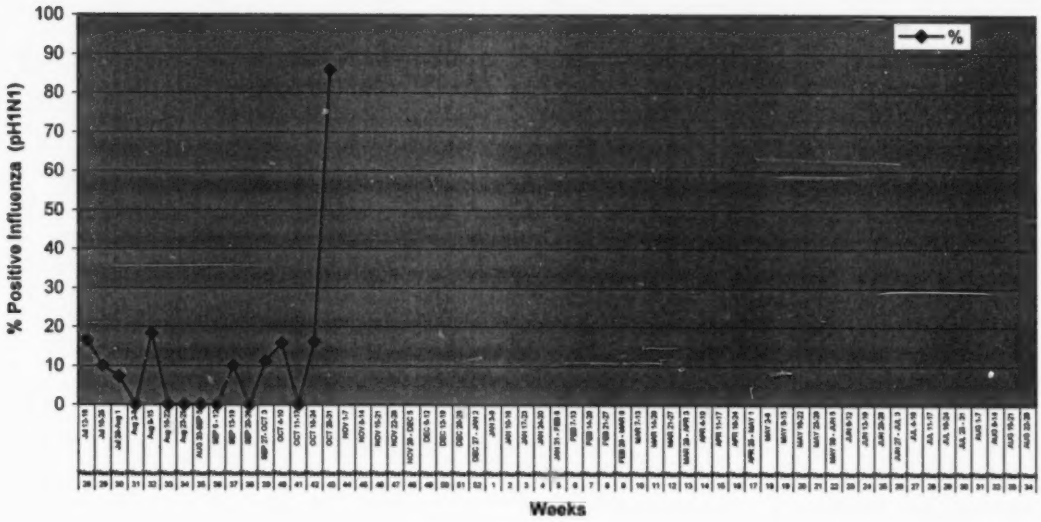
Based on FluWatch activity level definitions, Yukon has reported the following activity levels:
FluWatch activity level definition *http://www.phac-aspc.gc.ca/fluwatch/09-10/def09-10-eng.php*

Week 41	Sporadic: Sporadically occurring ILI and lab confirmed influenza with no outbreaks detected within the influenza surveillance region
Week 42	Sporadic: Defined as above
Week 43	Localized: Sporadically occurring ILI and lab confirmed influenza together with outbreaks of ILI occurring in less than 50% of the influenza surveillance region.

Laboratory Reports

There has been a large increase in the number of respiratory specimens submitted during week 43. During week 43, 85% of all respiratory specimens submitted were found to be positive for influenza A. Of positive influenza specimens 100% were subtyped as being pH1N1.

Percentage of Respiratory Specimens (submitted for testing in Yukon) Diagnosed Positive for Influenza pH1N1 durning weeks 28 - 43



Communities with Laboratory confirmed pH1N1

Cumulative laboratory information indicates that since April, 2009 Whitehorse and 7 out of 13 surrounding communities have had confirmed pH1N1 case reports.

Outbreaks

On October 29th, 2009 YCDC was notified of an influenza outbreak within the Whitehorse Correctional facility. The outbreak was contained to fewer than 10 residents who developed symptoms during their stay at the facility or who exhibited symptoms of influenza upon admission. Causative organism of the outbreak was identified as pH1N1.

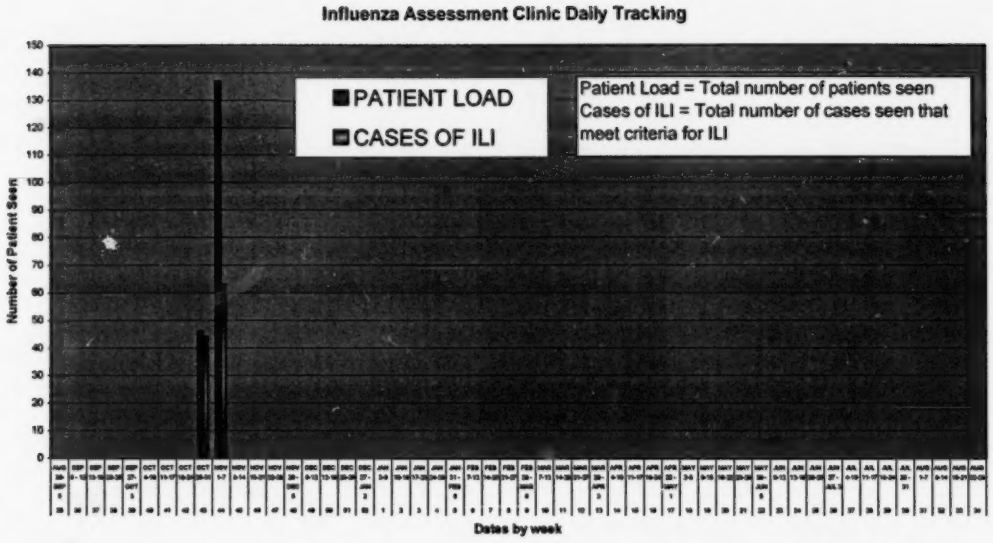
On November 3rd, YCDC became aware of influenza-like illness circulating within the Whitehorse Detox facility.

Schools

Since October 26th, 2009 YCDC has received reports of high absenteeism among students and staff from10 Whitehorse schools and 5 schools in surrounding communities. An outbreak has not yet been declared in a school setting, however, investigations are underway.

Influenza Assessment Clinic

This downtown Whitehorse clinic opened its doors on October 30th, 2009. The following graph depicts patient volume from October 30th to November 5th, 2009.


Influenza Assessment Clinic Daily Tracking
PATIENT LOAD
CASES OF ILI
Patient Load = Total number of patients seen
Cases of ILI = Total number of cases seen that meet criteria for ILI
Number of Patient Seen
Dates by week

Antiviral Prescriptions/Dispensing

Stay tuned for next week's surveillance report which will include a look at antiviral surveillance.

HealthLink 811

Surveillance information from HealthLink 811 service will be provided in next week's surveillance report.

Obtained from BC Influenza Surveillance Bulletin 2009-10: Number 4
Week 43 (October 25-31, 2009)
CANADA

FluWatch

During week 42, national influenza activity levels increased from the previous week. Compared to the week ending September 5, ILI consultation rates increased from 14 to 59 consultations per 1000 patient visits; this is above the expected range for this time of year. People under 20 had the highest consultation rates. The proportion of tests positive for influenza was 29.0% a large increase compared to previous weeks. 99.7 % of all subtyped influenza A specimens were positive for pH1N1; a single specimen was positive for seasonal H1N1 and 8 specimens were positive for H3N2. None were positive for influenza B. Geographically BC, Saskatchewan, Newfoundland and the Northwest Territories reported widespread activity; however activity levels are also increasing in the rest of the country particularly Alberta and Ontario. *www.phac-aspc.gc.ca/fluwatch/*

National Microbiology Laboratory

Between September 1st and October 28, 2009, 54 influenza isolates have been collected from provincial and hospital labs and characterized at the National Microbiology Laboratory (NML):

52 A/California/07/2009-like§ from AB, ON, SASK, BC, NT, & NU;
1 A/Brisbane/59/2007-like† from AB;
1 B/Brisbane/60/2008-like† from ON

§ A/California/07/2009 (H1N1) is the variant reference virus (pH1N1) selected by WHO for a pandemic influenza A/H1N1 vaccine. † indicates a strain match to the 2009-10 vaccine

Antiviral Resistance

Drug susceptibility testing at the NML between September 1st and October 28 indicated that most pH1N1 (n=35) isolates were sensitive to oseltamivir, one virus was resistant. All influenza B isolates tested (n=1) were sensitive and the one seasonal H1N1 isolate tested was resistant. All pH1N1 (n=39), seasonal H1N1(n=1) and A/H3N2 (n=1) isolates were sensitive to zanamivir. All pH1N1 (n=39), seasonal H1N1(n=1) and A/H3N2 (n=3) isolates were resistant to amantadine.

Global surveillance has shown that circulating pH1N1 viruses are resistant to amantadine but remain sensitive to zanamivir and oseltamivir, although sporadic cases of oseltamivir resistance have been observed worldwide

INTERNATIONAL

Northern Hemisphere: In the United States *(http://www.cdc.gov/flu/weekly/)*, in the week ending October 24 influenza activity increased. Forty-two percent of respiratory specimens tested in reference laboratories in week 42 were positive for influenza, and 100% percent of the subtyped influenza A viruses were pH1N1. 0.3% of specimens tested positive for Influenza B. The proportion of sentinel physician visits for ILI increased to 8.0%, this is above the seasonal peak for last year. The proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold. In Europe for the week ending October 30, 17 out of 29 countries reported a rising trend. 40% of sentinel laboratory samples were positive for influenza; over 99% of specimens positive for influenza A were pH1N1).

www.eiss.org

Southern Hemisphere: Many countries in the Southern Hemisphere previously reporting severe winter influenza activity have now passed the peak. Notably Australia, influenza activity is continuing to decrease with most jurisdictions reporting activity at or near baseline levels. In New Zealand pH1N1 activity continues to decline; consultations with sentinel physicians have declined from the peak in early July, and are now approaching baseline levels. In Chile, ILI activity is within the range expected for this time of year. In South Africa cases are also declining, but pH1N1 remains the dominant subtype. Previously, in June and July of this year the dominant subtype was A/H3N2.

Pandemic H1N1 Influenza Web Sites

Yukon Health and Social Services: http://www.hss.gov.yk.ca/

PHAC: *www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php*
BCCDC: *www.bccdc.ca/dis-cond/a-z/_h/HumanSwineFlu/default.htm*
http:// *www.health.gov.bc.ca/pandemic/response/index.html*
US CDC: *www.cdc.gov/swineflu/index.htm*
WHO: *www.who.int/csr/disease/swineflu/en/index.html*

Acronyms

ILI: Influenza-Like Illness
pH1N1: Pandemic H1N1 influenza or swine origin influenza
WHO: World Health Organization

Yukon Communicable Disease Control
#4 Hospital Road
Whitehorse Yukon T
Y1A 3H8
Phone: (876) 667-8323 Fax: (876) 667-8349